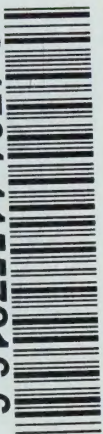


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equipment

FOR OUTDOOR PLAY



equipment for outdoor

Published by authority of
Hon . Paul Martin
Minister of National Health and Welfare
Ottawa

play



contents

	Page
Equipment for outdoor play	2
What to look for in play equipment	3
Basic play equipment	3
Sandbox	6
Large packing box	8
Hollow blocks	10
Work bench	12
Slide	14
Climbing horse	16
Climbing arch	18
Small ladder	20
Jungle gym	22
Easel	24
Saw horse	26
Low Table	28
Wading pool	30
Swing	32
Solid building blocks	34
Play-yard accessories	36

foreword

This booklet has been designed to assist parents in solving the problem of providing suitable play equipment that may be used safely and profitably by their children in their own back yard. The types of equipment suggested in the following pages are basically simple, sturdy and inexpensive to supply in terms of time and money and will provide the child and his playmates with all he needs for countless hours of enjoyable and constructive play.

The material and working drawings for this booklet were supplied by the Citizens' Committee on Children of Ottawa, Ontario, to whom grateful acknowledgement is made.

equipment for outdoor play

To a small child, play is a full-time career and he works very hard at it. Just as any good workman needs the tools best suited for his work, so children need play equipment suited to their age, strength and interests.

Life is much more fun for a child who has plenty of play equipment in his own back yard. Not only is he happier, but his toys attract other children and this helps him learn how to get along with others.

Because a child likes to play outdoors when he has plenty of things to do, it will be easy to keep him entertained in the fresh air in all weather. Outdoor play usually brings a good appetite and sound sleep, both of which are essential for growth.

But a child's most important goal during his first six years is to make himself familiar with the world about him -- the size and shape and feel of things, how different objects can be used together to build and create, and how to transform his play-yard into a boundless world of make-believe where he can act out the activities of the people he sees around him -- his mother, the mailman, the milkman, and so on.

what to look for in play equipment

The most important factor is simplicity. A slab of wood can be a train, a boat, a fence, a dam and a table, whereas a specialized toy like a monkey on a stick is always a monkey on a stick. A child's imagination is very lively and vivid and all he needs are the raw materials. His imagination supplies the details.

Play equipment need not be expensive if it is made of durable material and so simple that it can be made at home, thus saving on labor costs. Most of it can be used for many years, which makes the initial cost of time and money worth while.

All equipment made of wood should be carefully sand-papered and painted. A play-yard can be very attractive if the big objects are painted the same color -- a dark color weathers best -- and the smaller objects different colors.

BASIC PLAY EQUIPMENT

There are many kinds of play equipment and while one family would find it impractical to provide all the toys mentioned here, a group of families might be able to pool its resources and equip a co-operative playground for its children. This plan has worked out well in many communities.

The equipment described here has been chosen for the variation in play it offers. Each object may be used in many different ways so that a child may choose the toys he wants for active, quiet or creative play.

It is a good idea to fence off a play area. The child feels a sense of possession when he has his own little fenced-in estate. Snow fencing is cheap and effective.

A Sandbox like the one on page 8 is larger than most, so that several children can play together in it. A quarter of a cubic yard of sand fills it. Placed in the shade or equipped with a canopy, a sandbox and a few small toys such as spoons, sieve, molds, painted tin cans, pails and toy cars will keep children happy for hours.

A large Packing-Box can be used in many ways. With the open side down, it is a stage or climbing platform; on its side it is a cave, grocery store or house; lying flat it is a boat, fort or bridge.

Hollow Blocks. These blocks are units of each other and excellent for developing the big muscles of small children and the engineering potentials of older children.

Ladders. Small children love climbing, balancing and dramatic games such as playing fireman; ladders are ideal for these purposes. They combine perfectly with a sandbox, a large packing-box and the play-yard accessories.

A Workbench for older preschoolers and school children is a great help for the little carpenter. In winter it can be brought into the cellar and tools hung on the wall. If the outline of the tool is painted on the wall, a child will know when one is missing. Butter boxes under the bench can be used to store scraps of wood or tools. The most used tools are a hammer (regulation size, not child's), a small saw, screw-driver, pliers, a fret-saw and plenty of sandpaper, together with an assortment of nails and screws.

A Slide is wonderful for developing muscles and balance. The slide shown on page 16 is safe and not too high. Where several children are playing together, a few regulations on the use of the slide will help prevent bumps and bruises.

Climbing Apparatus provides good exercise and a sense of achievement, but it needs to be very sturdy. The climbing horse is both safe and simple to make. The climbing ladder can be used outdoors or indoors and provides lots of fun. Children should be supervised for the first few times they use this type of equipment until they gain some experience.

The Jungle Gym is a piece of equipment that can be used for years with great pleasure. It is the most difficult construction problem of all and it might be worth having it made by a carpenter.

Painting Easels can be used inside or out-of-doors. When they are used out-of-doors they should be covered with a plastic sheet for protection. Children work best with long-handled brushes on big pieces of paper. Newsprint, cut in half, makes good painting paper. Powdered poster paint, mixed with water, is inexpensive. Children under five work best with a different brush for each color while older children can usually get along with one brush, rinsing it before using a new color.

A Seesaw is a favorite with children for many years. It can be made like the one on page 27 or by running a long plank through the lower rung of a small saw-horse. Saw-horses can be used in many ways: they combine satisfactorily with other play equipment.

A low Table is very useful for quiet play with crayons, plasticine or for tea parties and picnics. An oilcloth or plastic cover can be made for it.

Play-Yard Accessories. Basic equipment for any play-yard are planks, boxes, barrels and rope. Plain two-by-six planks four and six feet long, sandpapered and painted, can be used in a thousand ways, especially if there are at least two of each size. Orange crates and butter boxes can be used for tables, chairs, houses, trains, storage of toys and many other uses. Nail kegs and barrels are fun to roll and one can be used as an outdoor wastebasket. Varying lengths of clothes-line are useful in almost any project.

MORE ABOUT PLAY EQUIPMENT

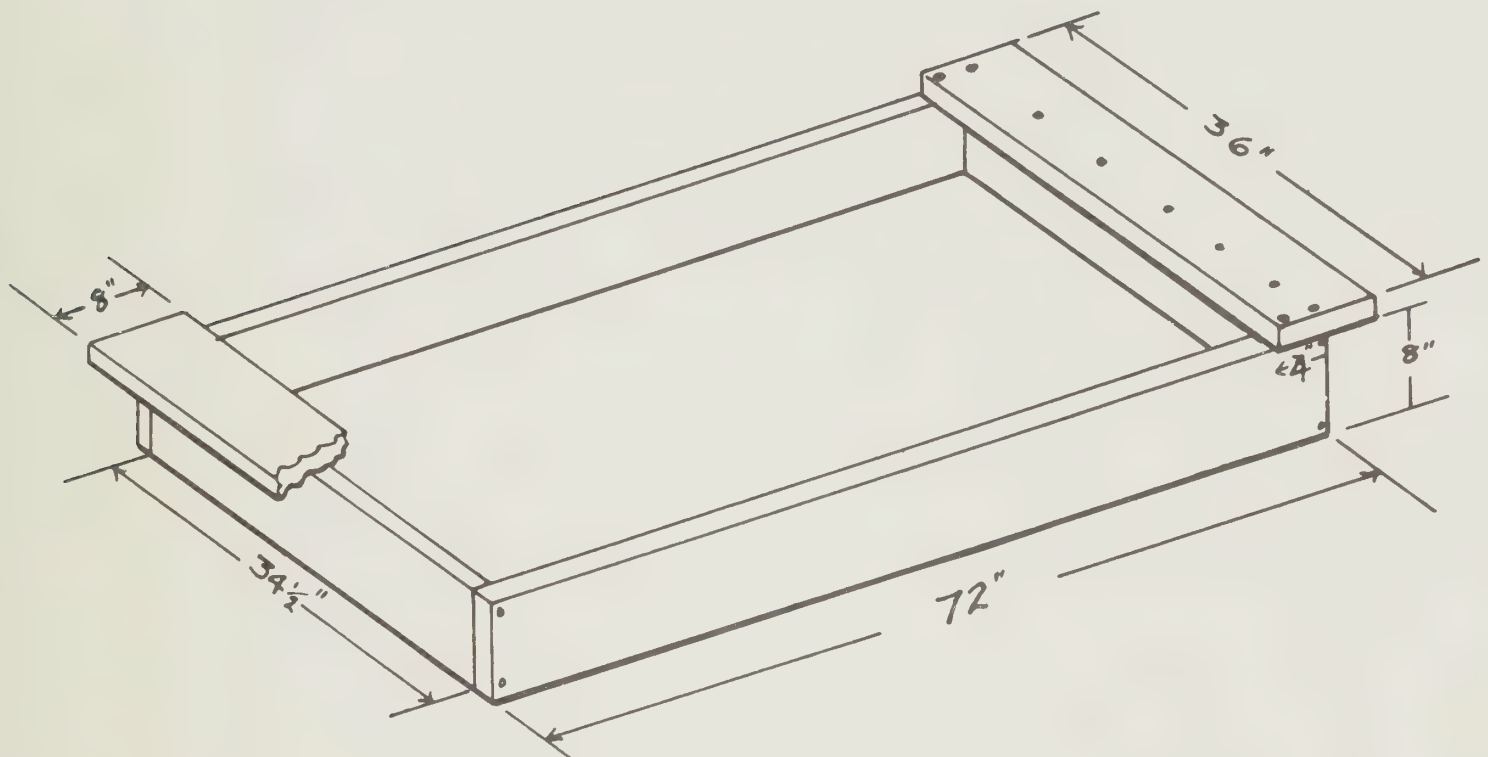
If you want advice in selecting play equipment, or in setting up a co-operative playground, there is consultant service available from the provincial government fitness and recreation offices or from the Physical Fitness Division of the Department of National Health and Welfare. A number of booklets are available for free distribution and will be sent on request.

sandbox

A sandbox is a wonderful place for quiet play from the time children are old enough to know that they shouldn't eat their own mud pies. The model shown here is larger than the ones usually available commercially and has a seat at each end. The larger size gives more elbow room and enables several children to play together without destroying each other's castles in the sand.

As children are likely to play in a sandbox for long stretches, it is best to place it in the shade or to have a canopy over it.

Ordinary kitchen utensils make about the best "furnishings" possible for a sandbox. Wooden spoons, wooden cookie moulds, metal scoops, a strainer and tins of various sizes will fill the bill.



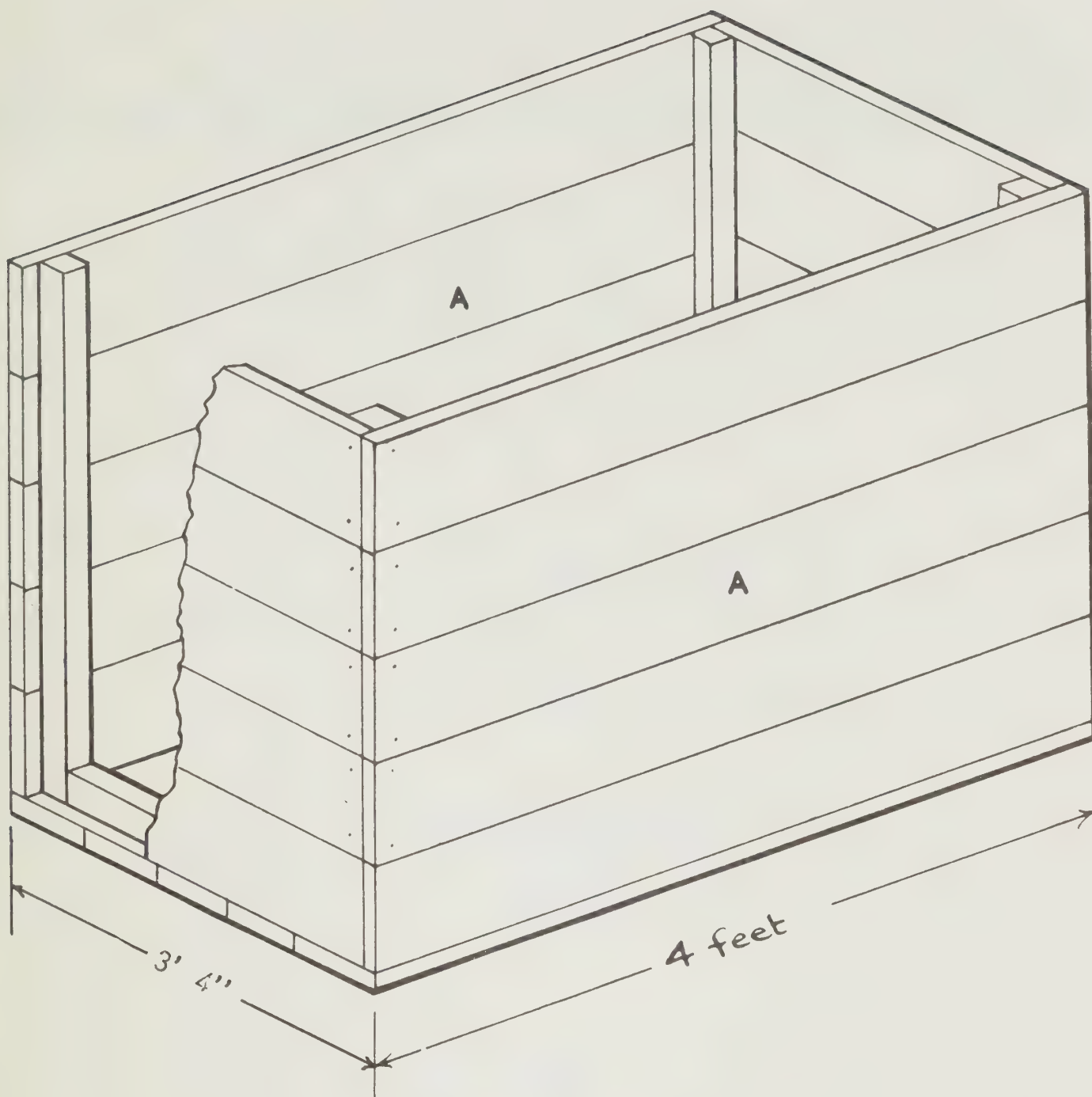
Made of 1"x 8" dressed wood. Use flathead screws countersunk or roundhead screws. Round all edges and corners. Excavate a 4-inch pit. Protect buried portion of box with creosote.

Round all corners and edges. Paint portion of box above ground.

Box holds about $\frac{1}{4}$ cubic yard of sand.

large packing box

A large packing box is preferable to a play house because it is cheaper and affords more possibilities for creative play. A large, sturdy box challenges the imagination and ingenuity of children well into their middle years, and playing with it brings many of the larger muscles into use. Lugging, hauling and balancing are the everyday actions of the under-five. With the open face down, the box makes a wonderful platform, high enough for adventure but not too high for dangerous falls. A ladder against the side opens the way for a wide variety of dramatic games. Tipped on its side, the box makes a perfect house ready for a fourth wall to be made with boards, blocks, or a blanket and changed about at will.



Requires 15 pieces 1"x 8"x 48" dressed
 10 pieces 1"x 8"x 38" dressed
 4 pieces 2"x 2"x 40" dressed
 2 pieces 2"x 2"x 32" dressed

Assemble two sides marked A.

Assemble bottom.

Cut boards for ends, basing length on width of bottom.

Complete assembly.

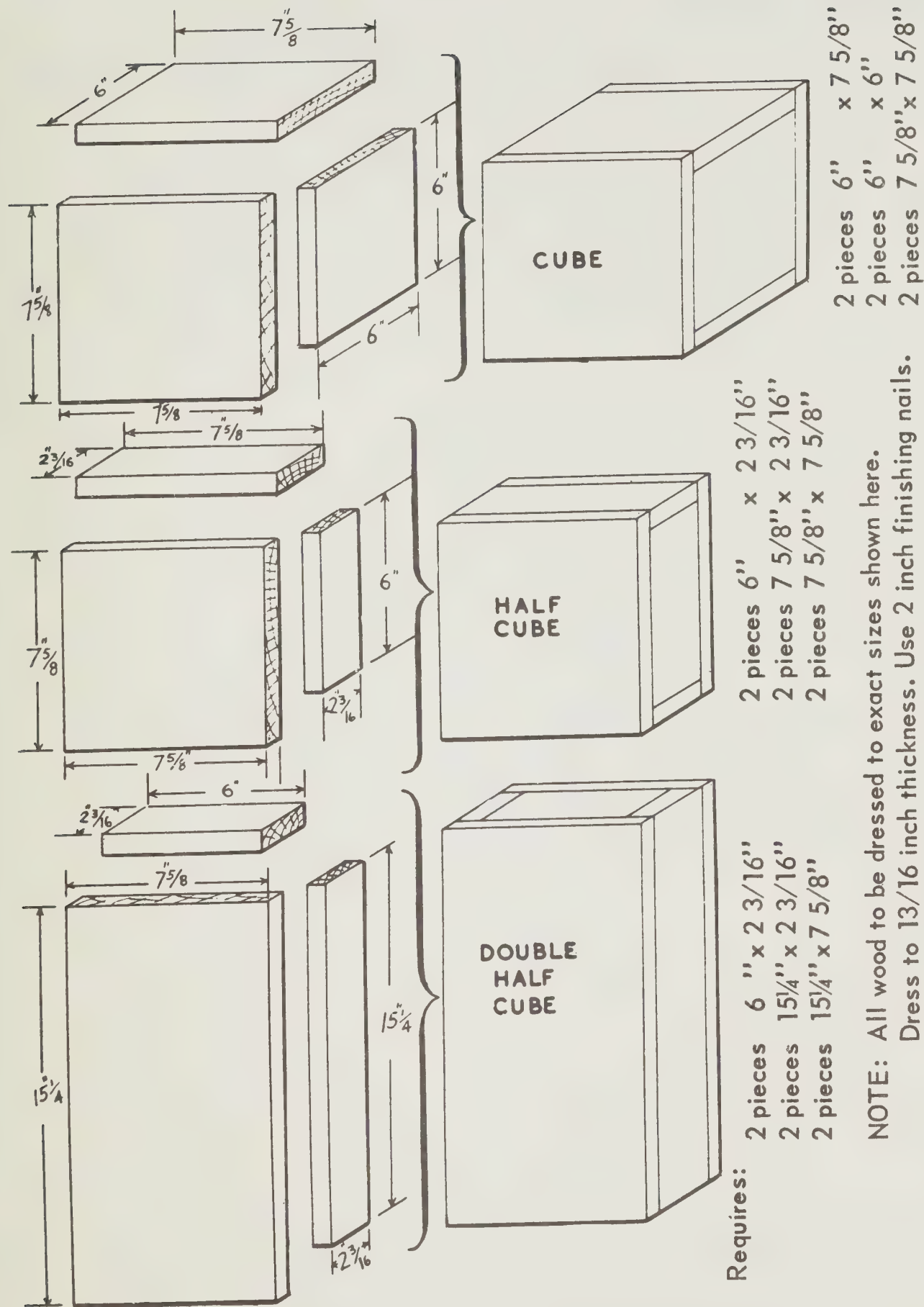
Sand all corners and edges round.

hollow blocks

Blocks have the double advantage of being good for play indoors as well as out, and they appeal to children from two to twelve. Eight of each size make a good set.

The lumber is expensive but this play tool will continue to be useful and interesting throughout the child's whole play life. It can be passed on to younger members of the family.

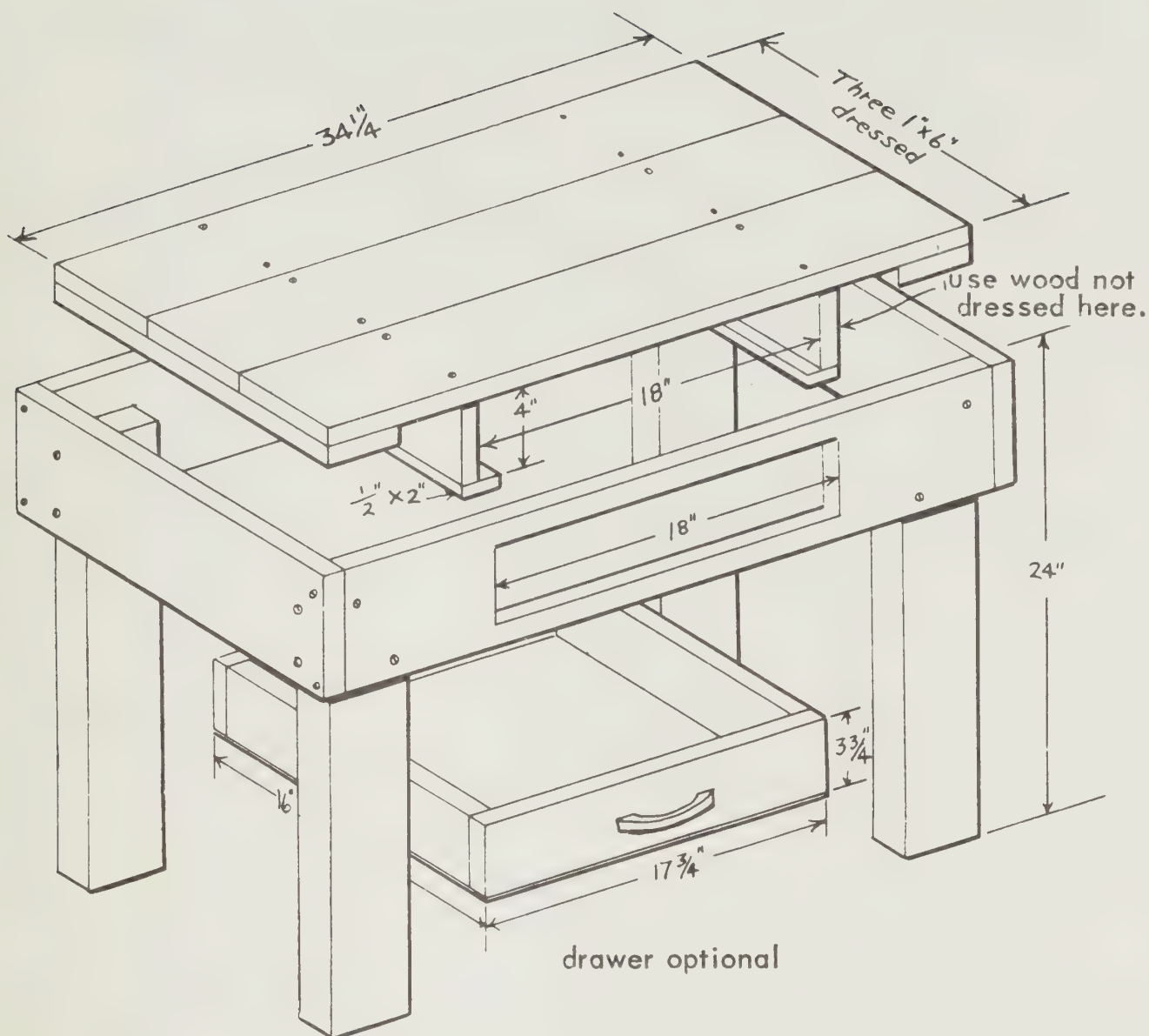
Combined with planks, barrels, boxes, these hollow blocks provide endless play possibilities.



work bench

Small children like to hammer just for hammering's sake, but by the time they are four years old they really begin to want to make things. The work bench shown here gives adequate working space and some storage room for tools.

Beginning carpenters should use soft woods -- odd bits, molding, dowels and rounds, old boxes, etc. A hammer to be used by a three or four-year-old should be the broad-headed type used by a cobbler. Older children can handle a ten-ounce claw hammer and the eight-to-ten-year olds a still heavier one. It pays to buy a good saw with teeth which retain their cutting edge and can be sharpened. Rasps, scrapers and sandpaper are all better for use by small children than edged tools such as chisels and planes. A miter box for sawing angles is very helpful and there are various good types of braces and bits on the market.



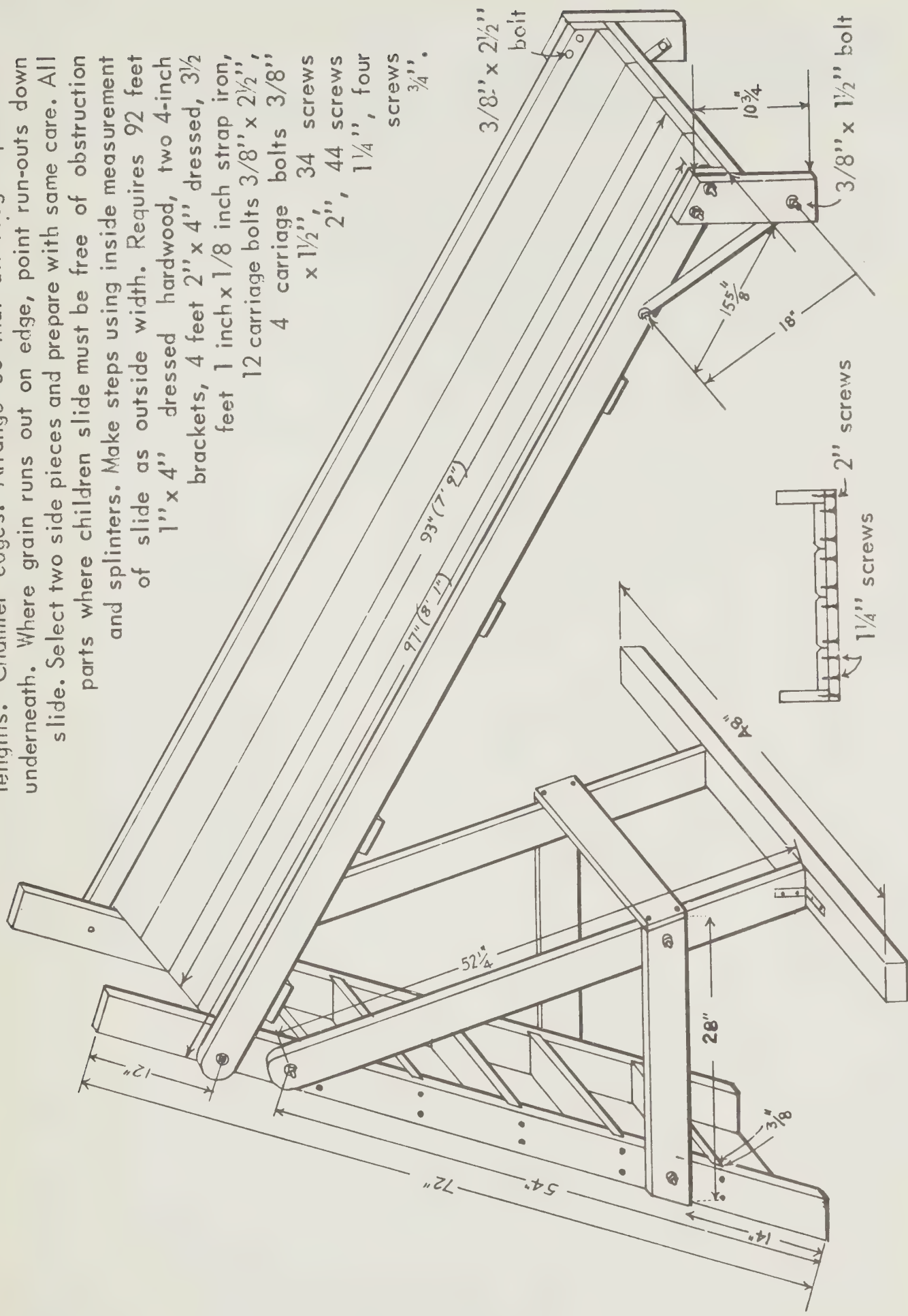
Requires: 3 feet 1" x 4" rough
 20 feet 1" x 6" dressed
 8 feet 2" x 4" dressed

Drawer
 3 feet 1/2" x 2" dressed
 3 feet 1" x 4" rough
 6 feet 1" x 4" dressed
 Masonite 1/8 inch 16" x 17 3/4"

Make top first, then make frame to fit allowing top to sit flush. A vise should be added to front right-hand corner.

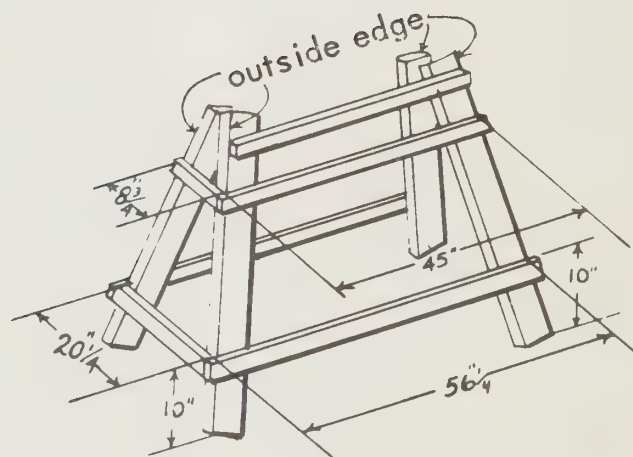
This slide is recommended for a backyard where there is only irregular supervision. It is sturdy but not very high and may, in fact, seem a bit mild for the eight and nine-year-olds. However, it will supply the means for a great deal of good exercise, an outlet for high spirits and an opportunity for teaching some of the elementary safety rules.

Except for 48 inch steady bar (2" x 4") all wood is 1" x 4" dressed. All 1" x 4" should be hardwood. Select four 8-foot lengths. Chamfer edges. Arrange so that all rough spots are underneath. Where grain runs out on edge, point run-outs down slide. Select two side pieces and prepare with same care. All parts where children slide must be free of obstruction and splinters. Make steps using inside measurement of slide as outside width. Requires 92 feet 1" x 4" dressed hardwood, two 4-inch brackets, 4 feet 2" x 4" dressed, 3 1/2 feet 1 inch x 1/8 inch strap iron, 12 carriage bolts 3/8" x 2 1/2", 4 carriage bolts 3/8" x 1 1/2", 34 screws 2", 44 screws 1 1/4", four screws 3/4".



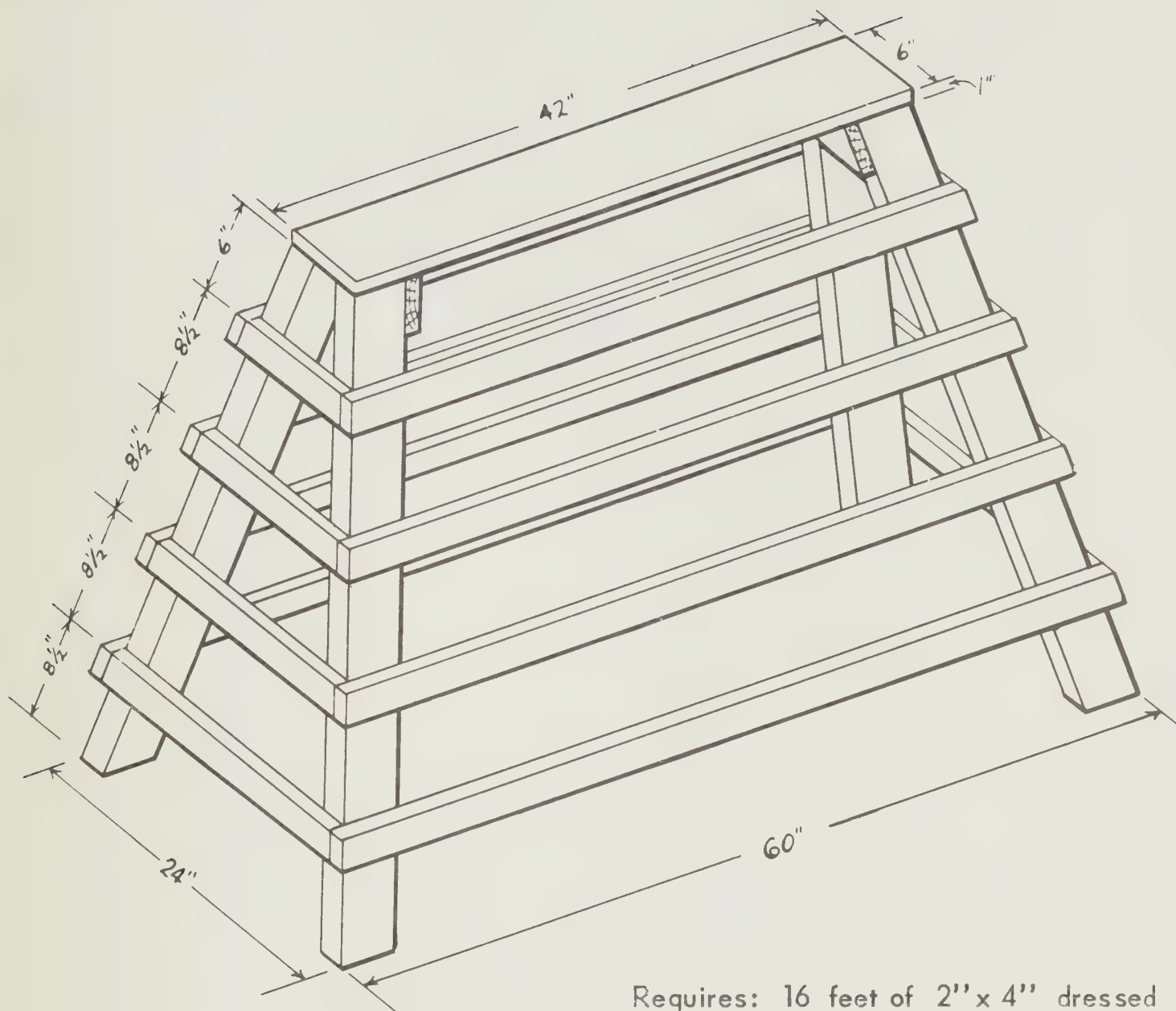
climbing horse

The climbing horse is the simplest type of climbing apparatus to build and provides a wonderful answer to every child's desire to climb.



Framing

Lay out 4 2"x4"'s about 48 inches long. On outside edge lay out a 10" measurement as above. Frame up with top and bottom rungs. Temporarily fasten a batten as above in correct position for top line (measured up outside edge). Top line can now be pencilled for sawing. Follow around and do bottom of legs. Correct angles can be sawn.



Requires: 16 feet of 2"x 4" dressed
 1½ feet of 1"x 4" dressed
 54 feet of 1"x 2" dressed
 (1"x2" should be hardwood)
 4 feet of 1"x 6" dressed

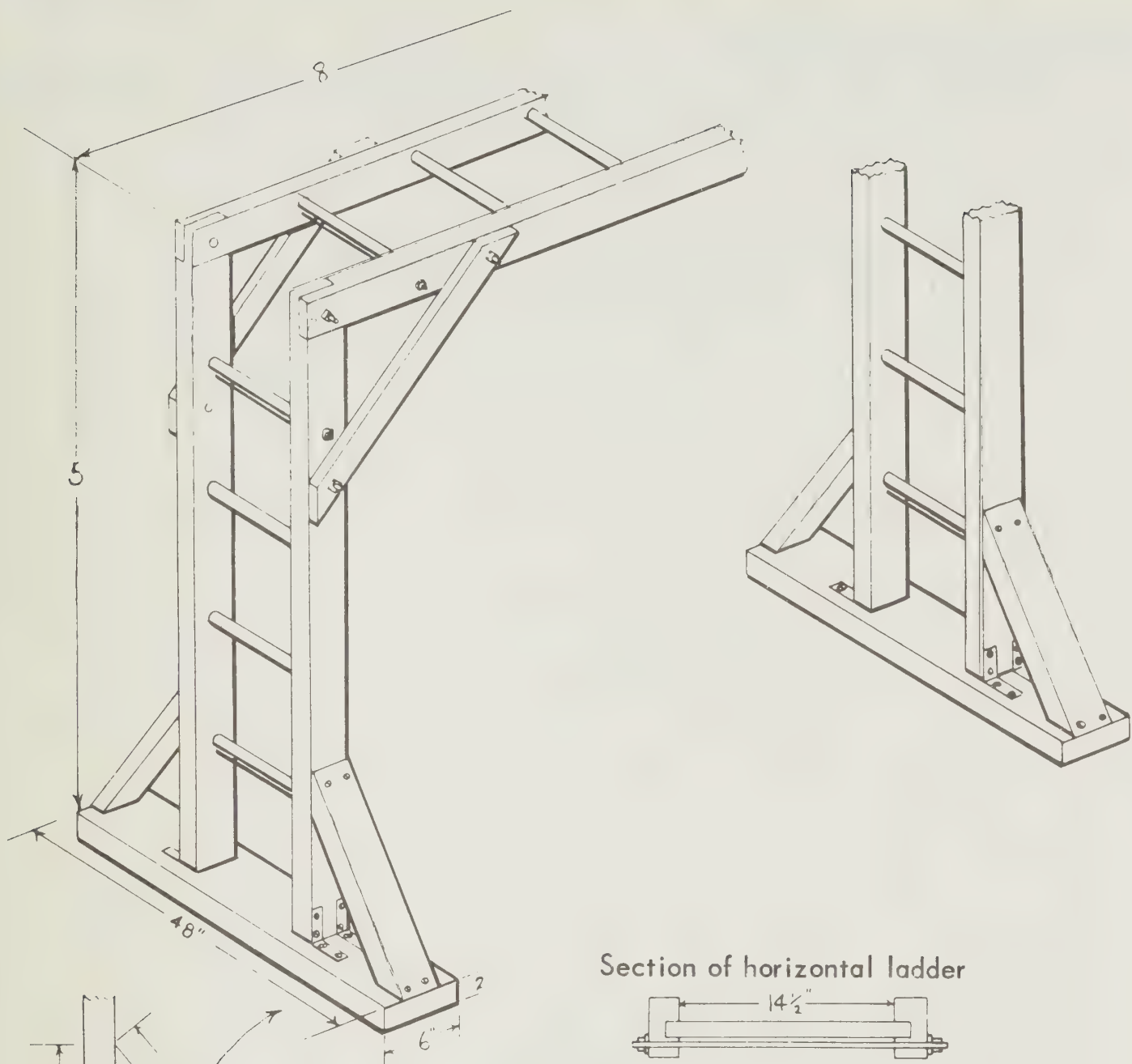
Use flathead screws or roundhead. If flathead screws are used, holes must be countersunk.

Round all corners and edges.

from CHILDREN'S CENTERS

climbing arch

The climbing arch is a good, basic climbing apparatus that can be used both indoors and outdoors. For small children, a swing can be hung from the middle rung, or a heavy plank can be placed across the arch, resting on the lower rungs, to make a platform. Children over five are likely to feel that scaling the heights of the climbing arch is not much adventure but they will use it for make-believe play.



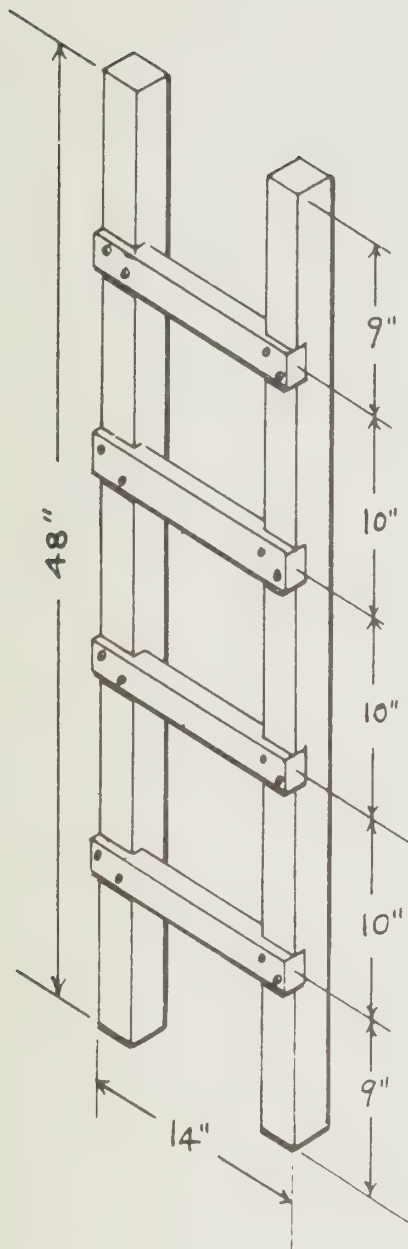
Section of horizontal ladder

Requires: 10 feet 1"x.2" dressed
 44 feet 2"x 4" dressed
 20 feet 1" round hardwood
 8 feet 2"x 6" dressed
 8 4" brackets
 7 pieces iron rod $\frac{1}{4}$ " diameter
 threaded both ends, with nuts
 and washers (tie rods).

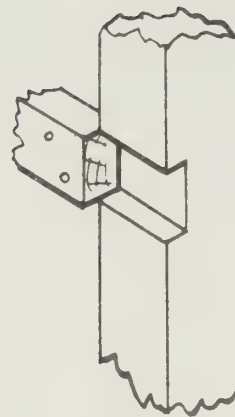
Use tie rod under each end rung of ladders
 and one in centre of horizontal ladder.
 Sand all corners and edges round.

small ladder

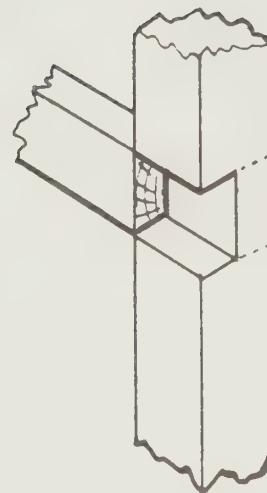
Ladders are useful in imaginary play and will be used most often along with the hollow blocks and packing case. A four-foot ladder is a good manageable length for children under five.



DO cut posts like this
 $\frac{1}{2}$ inch only.



DON'T cut posts for
 rungs like this. Posts
 will break on dotted
 lines.



Use 2" x 2" dressed for posts (8 feet)
 Use 1" x 2" dressed for rungs (6 feet)
 Use flat-head screws drilling and coun-
 tersinking holes in rungs. If you haven't
 a countersink use round-head screws.
 (16 screws. 2 inch)

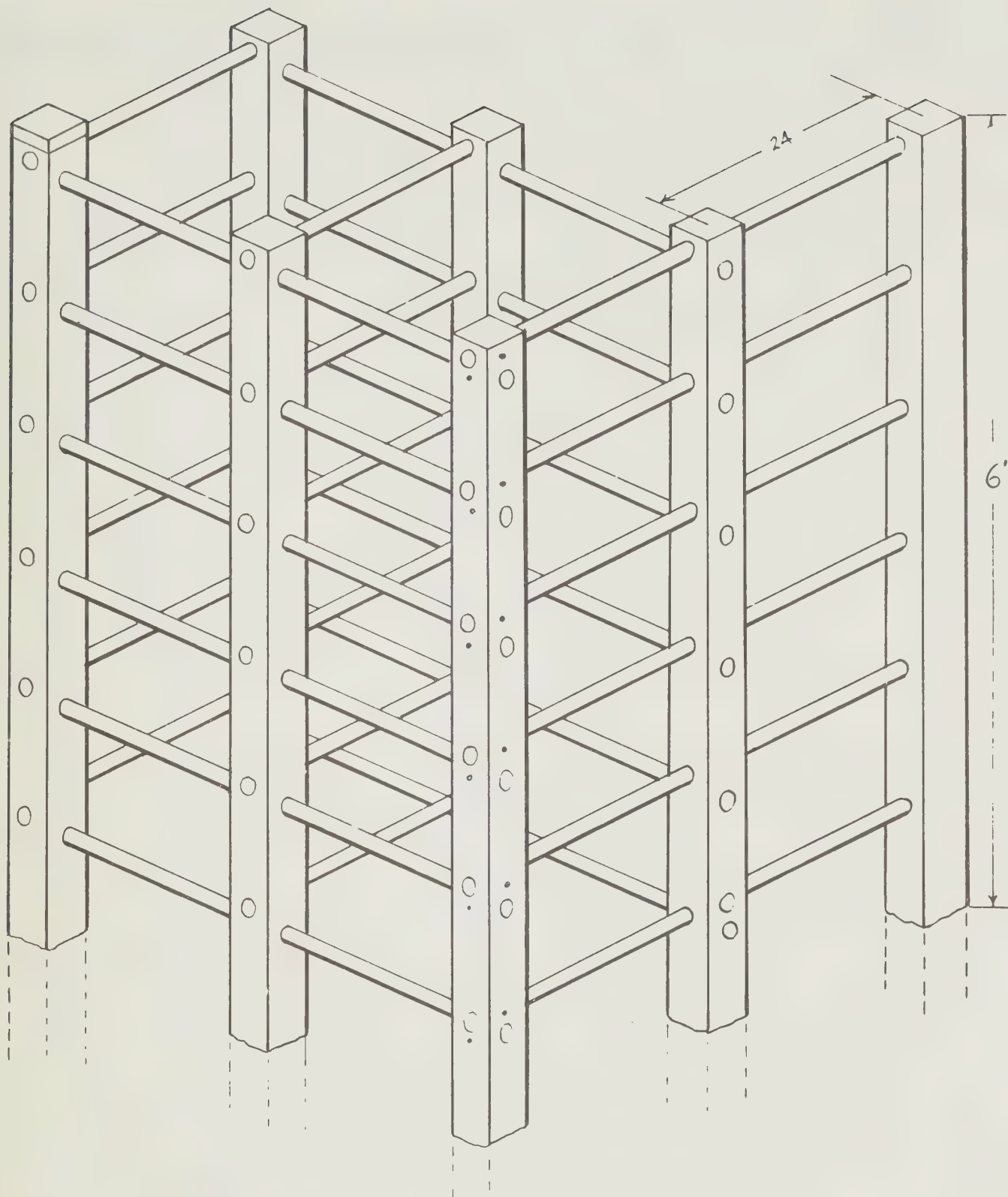
NOTE: 2 inch wood dressed is not 2 inches wide. Base cuts on
 actual size.

Sandpaper all edges and corners round

from CHILDREN'S CENTERS

jungle gym

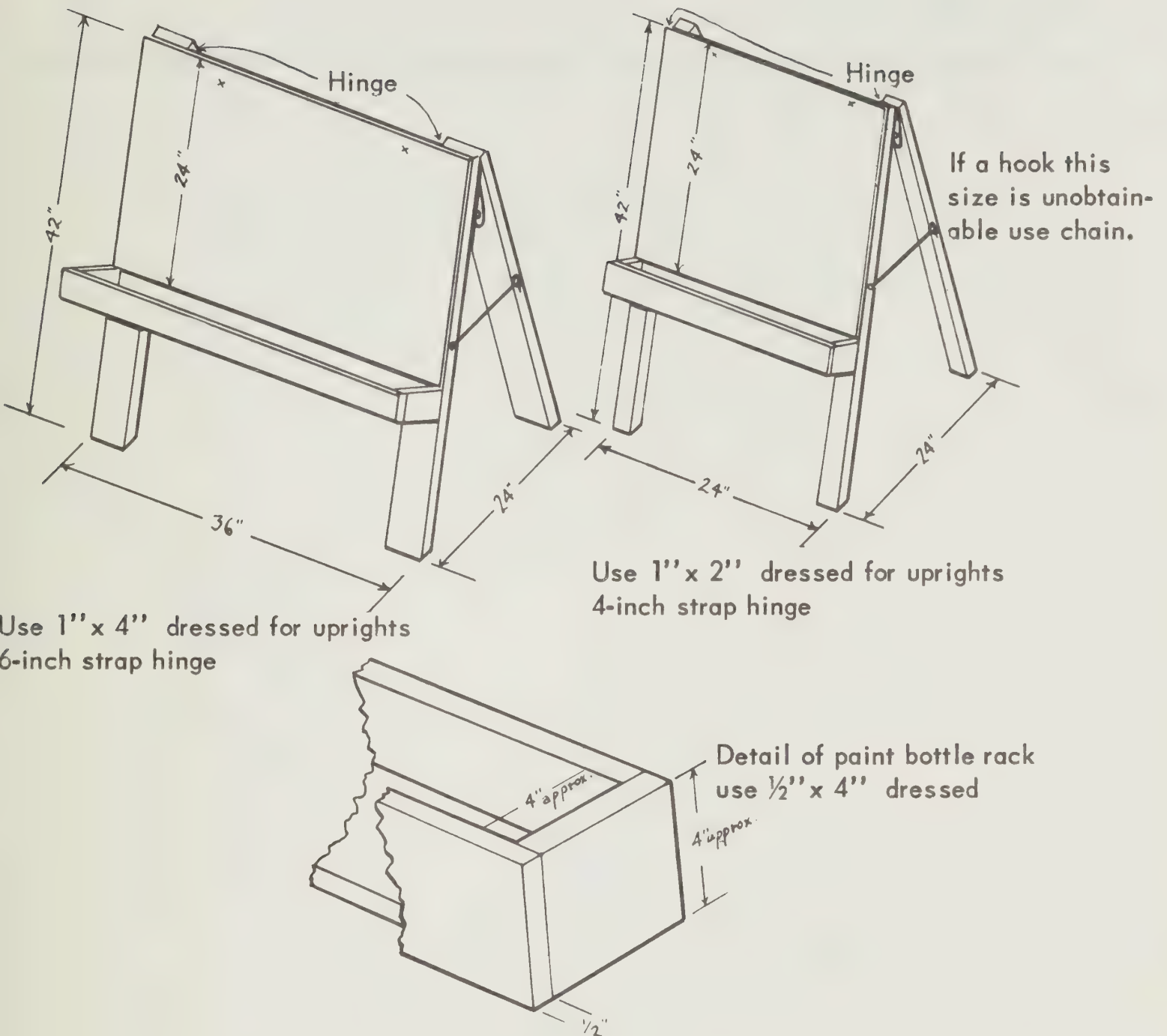
The jungle gym is the ultimate in climbing apparatus. It is expensive to make but a well-built one will last for many years. It will be enjoyed by children of all ages.



Use 4" x 4" for posts (dressed).
1 $\frac{1}{4}$ " hardwood dowelling for rungs.
Cap each post with 1" x 4".
Any number of units can be made.
Bury ends 2 feet in ground.

An easel provides an opportunity for children to be introduced to the pleasures of painting. The paints should be poster paints, the least expensive being a powdered kind which mixes with water. Small batches of each colour can be mixed at a time and stored in jars with screwtops. Long-handled brushes are recommended, even for teenagers, as the long brush encourages freedom of arm movement and less inhibited design. Young children will need a brush for each colour; the older ones will be able to remember to dip the brush in clear water when changing colours; the still more experienced artist will enjoy having a palette made with a pie plate. Sheets of newsprint cut in half make an acceptable painting surface.

Many children enjoy finger painting. Fingerpaint can be made at home from this recipe: Take $\frac{1}{2}$ cup of cornstarch. Mix with $\frac{1}{2}$ cup of cold water. Add $\frac{1}{2}$ cup of boiling water and cook until thick. Cool. Add $\frac{1}{2}$ cup of ivory soapflakes and $\frac{1}{4}$ cup of talcum powder. Addition of the liquid poster paint colours to small quantities of this base makes fingerpaint. Shiny shelf paper dipped in water and placed flat on a table makes a good surface for finger painting.



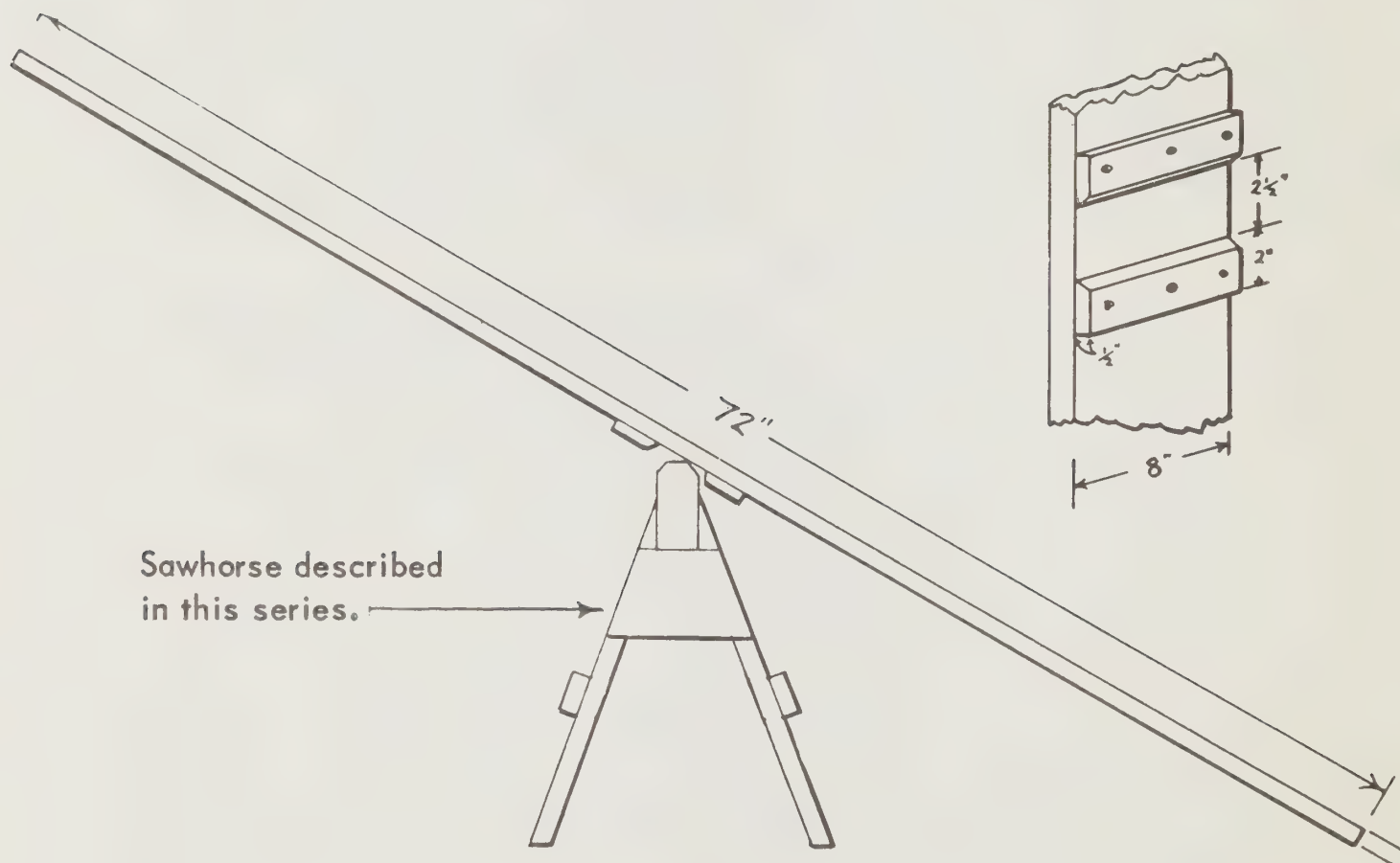
Two sizes of easel are illustrated. The larger is for the household where there is ample space. The smaller will serve for smaller homes or apartments. Either size can be doubled in capacity by construction of another painting surface on the other side.

1/4 inch plywood for painting surface
Small Xes indicate brads for holding paper.

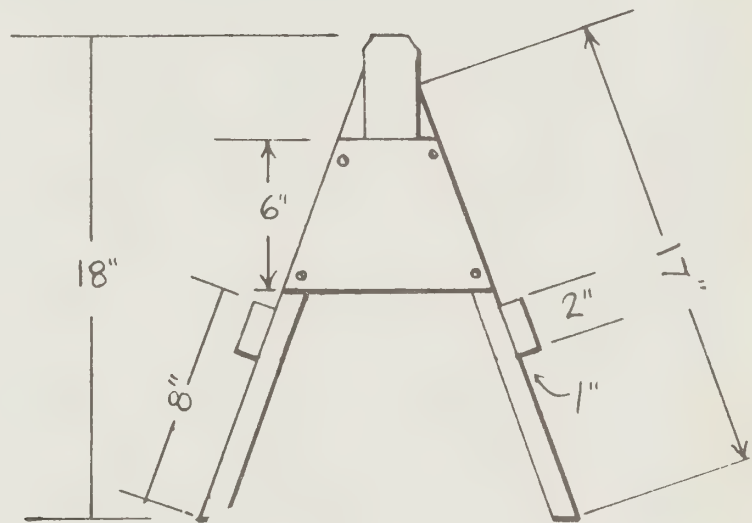
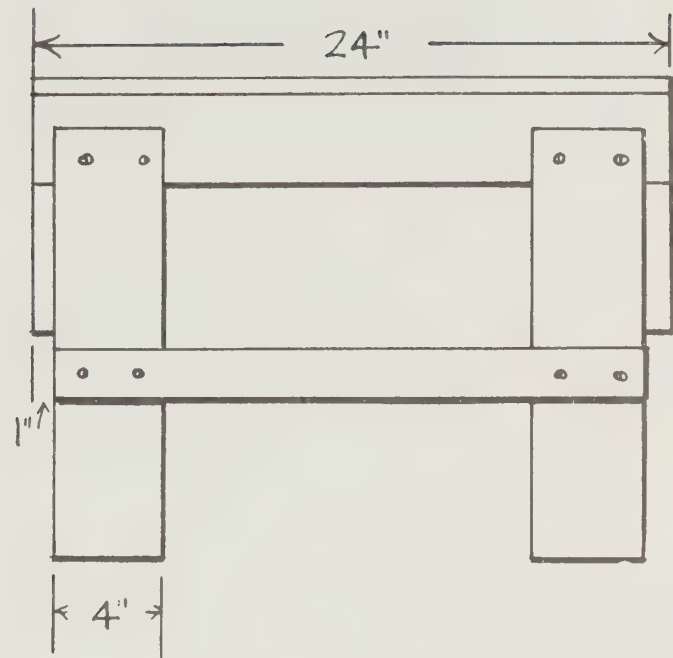
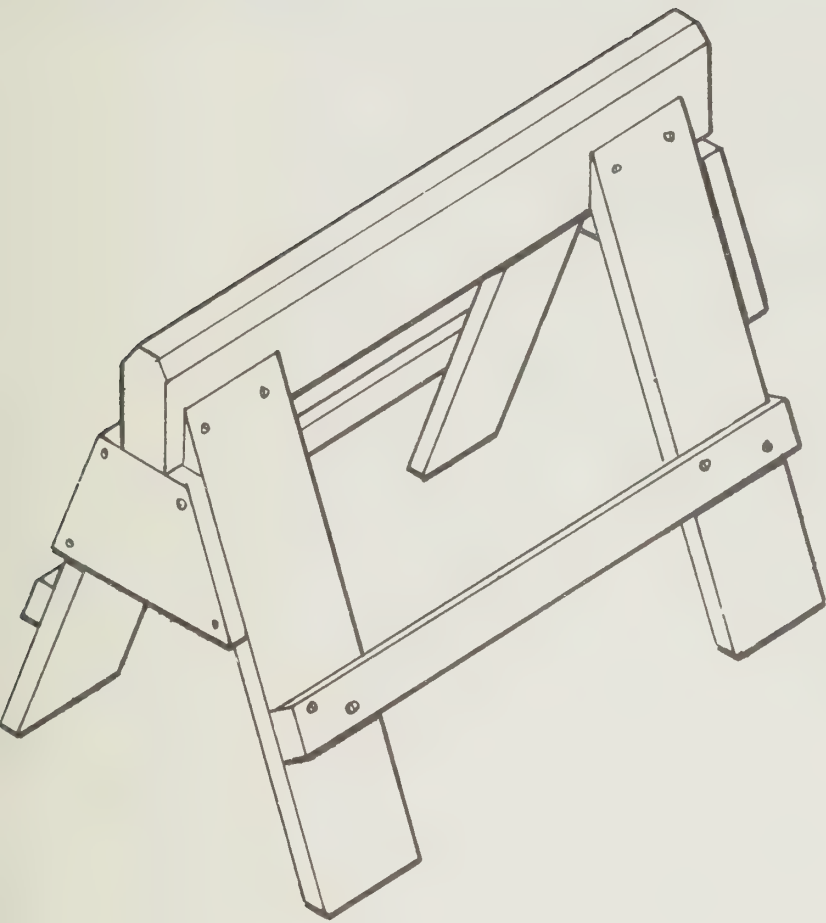
from CHILDREN'S CENTERS

sawhorse

Sawhorses are inexpensive to make and with the addition of a plank can be changed into a seesaw. Two planks stretching over two sawhorses creates a make-shift table, an excellent place to make mud pies.



This seesaw requires only a board with two cleats as shown and one sawhorse as described in this series.



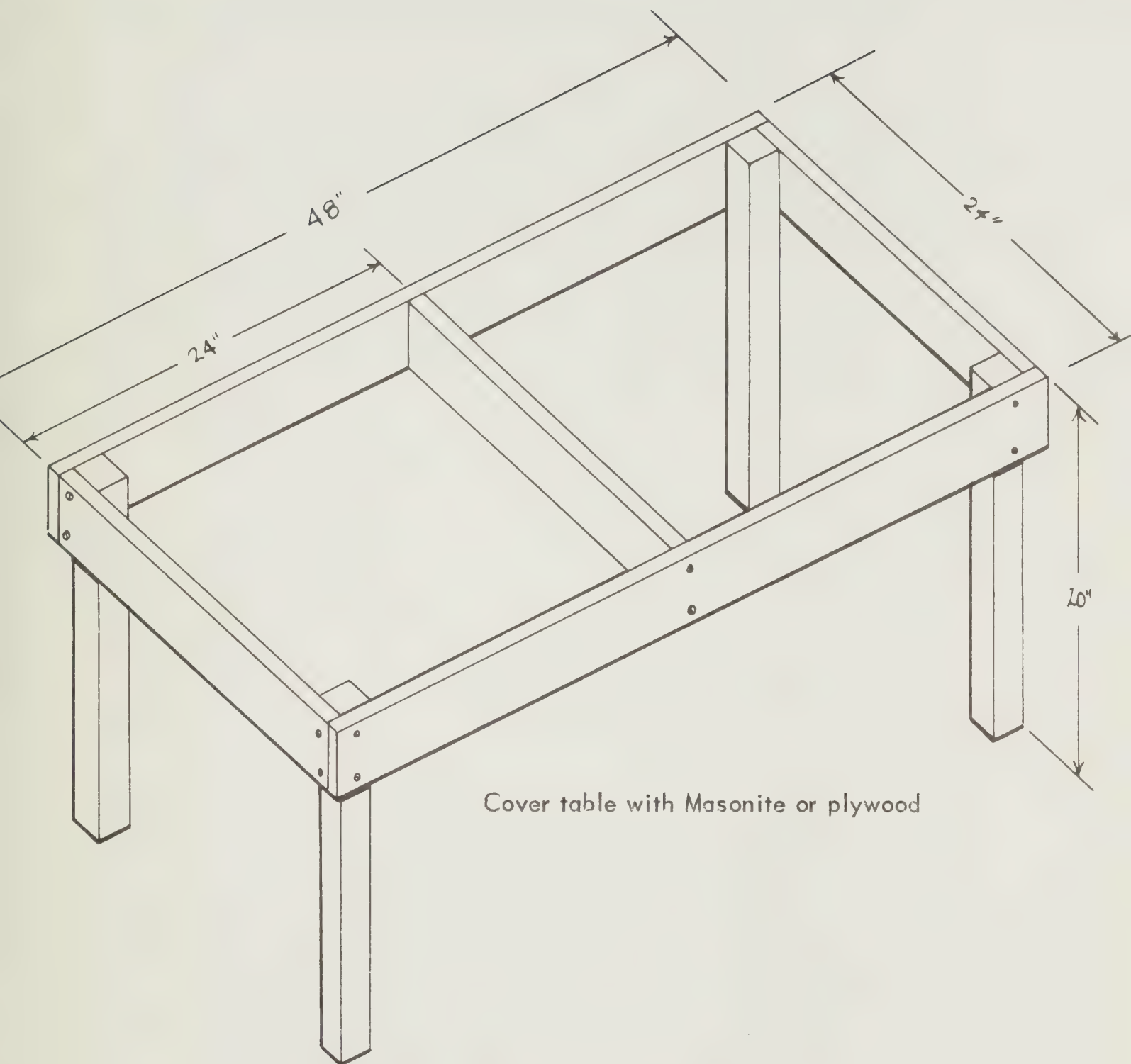
Requires:

- 4 feet 1"x2" dressed
- 6 feet 1"x4" dressed
- 1½ feet 1"x6" dressed
- 2 feet 2"x4" dressed

Sand all corners and edges round.

low table

Table play involves the use of all sorts of small games, blocks, puzzles, plasticene, clay, tink-er toys and other types of small play equipment. The table shown here is low, sturdy and designed for hard usage. It can be left outside if well painted. With the addition of a tea cloth, a play table becomes a picnic spot for the whole family. Instead of conventional chairs, the hollow blocks already described may be used as seats for the table or a bench may be made by placing a board between two butter boxes.

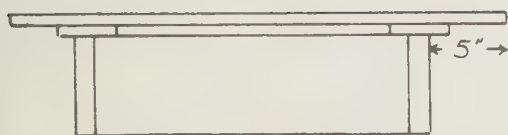
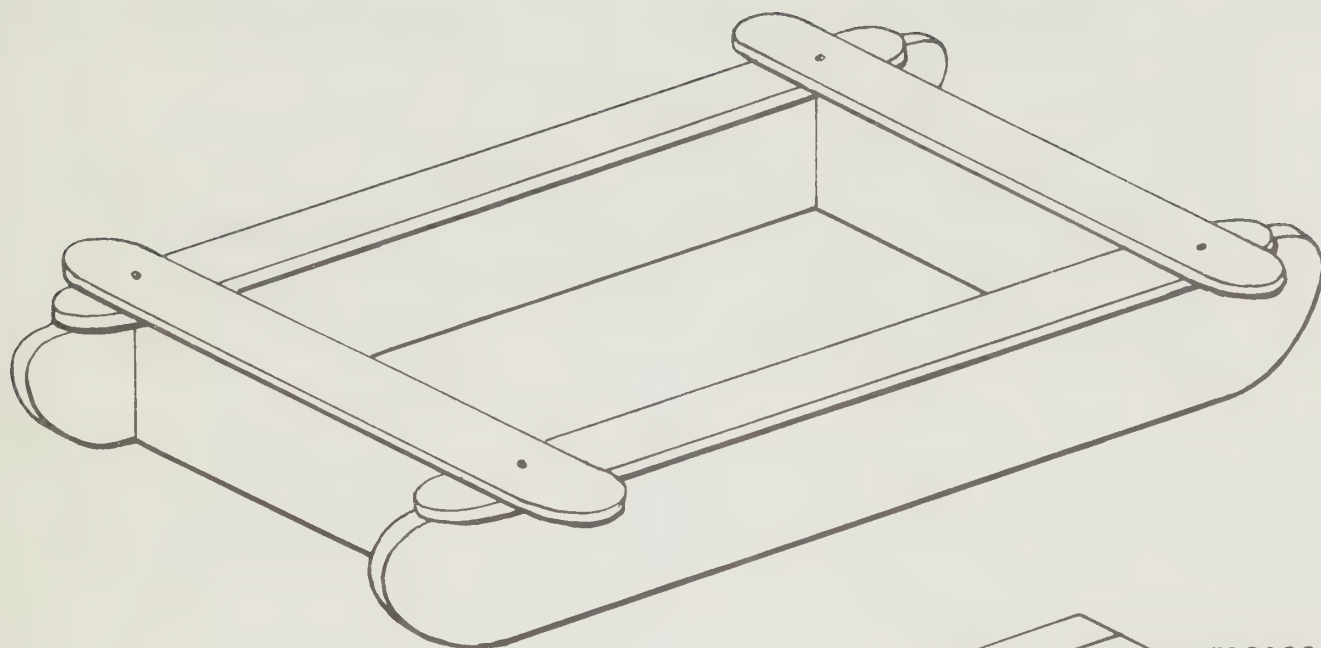


Cover table with Masonite or plywood

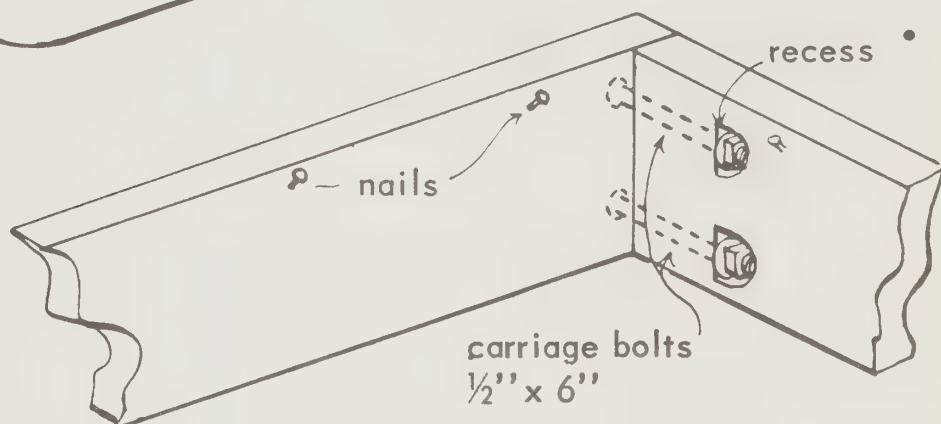
14 feet 1" x 4" dressed
7 feet 2" x 2" dressed
1 piece $\frac{1}{4}$ " Masonite or weatherproof plywood 2' x 4'

wading pool

Playing with water has an amazingly relaxing effect on children and is an effective pacifier on occasions when irritability and bad temper get the upper hand. However, a wading pool requires supervision if it is being used by children three years of age or younger. A small child can drown in as little as two inches of water. It is safer to fill the pool only when it is needed for play.



End view



Use 2" x 12" dressed for sides. Make inside dimensions 3 feet by 5 feet or, if you want a larger pool, 4 feet by 6 feet. 3' x 5' is a good size for three or four young children. Use 1" x 6" dressed for seats. Tar or creosote inside and bottom edge. Paint outside. Have a tarpaulin made to fit inside after frame is made. Tarpaulin requires grommets one inch below top edge, one foot apart. Hang tarpaulin on nails inside frame.

Set up on a bed of fine crushed stone or gravel. Make bed at least one foot larger than pool all around. Empty and scrub frequently in hot weather. To empty, bail then tip.

3' x 5' pool requires 20 feet 2" x 12" dressed
21 feet 1" x 6" dressed

swing

In addition to the types of swing shown here, a safe one which is especially good for little children can be made by attaching an inflated rubber tube to a tree limb with a stout rope.

Swings should be placed well out of the line of travel, if possible where no one needs to pass in front or back of them.

Swing frame can be built in many ways. 2" pipe is good. The two shown here serve different purposes. Front one will serve as family swing for many years. One in rear will do until children are about 8. The first is firmly fixed; second can be dismantled or moved.

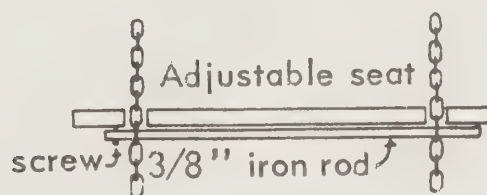
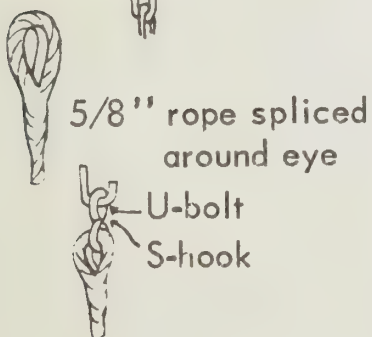
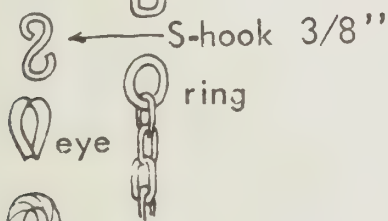
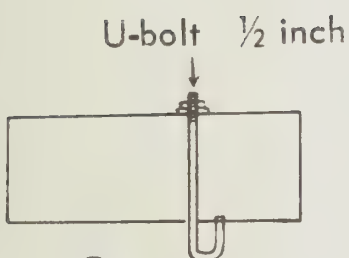
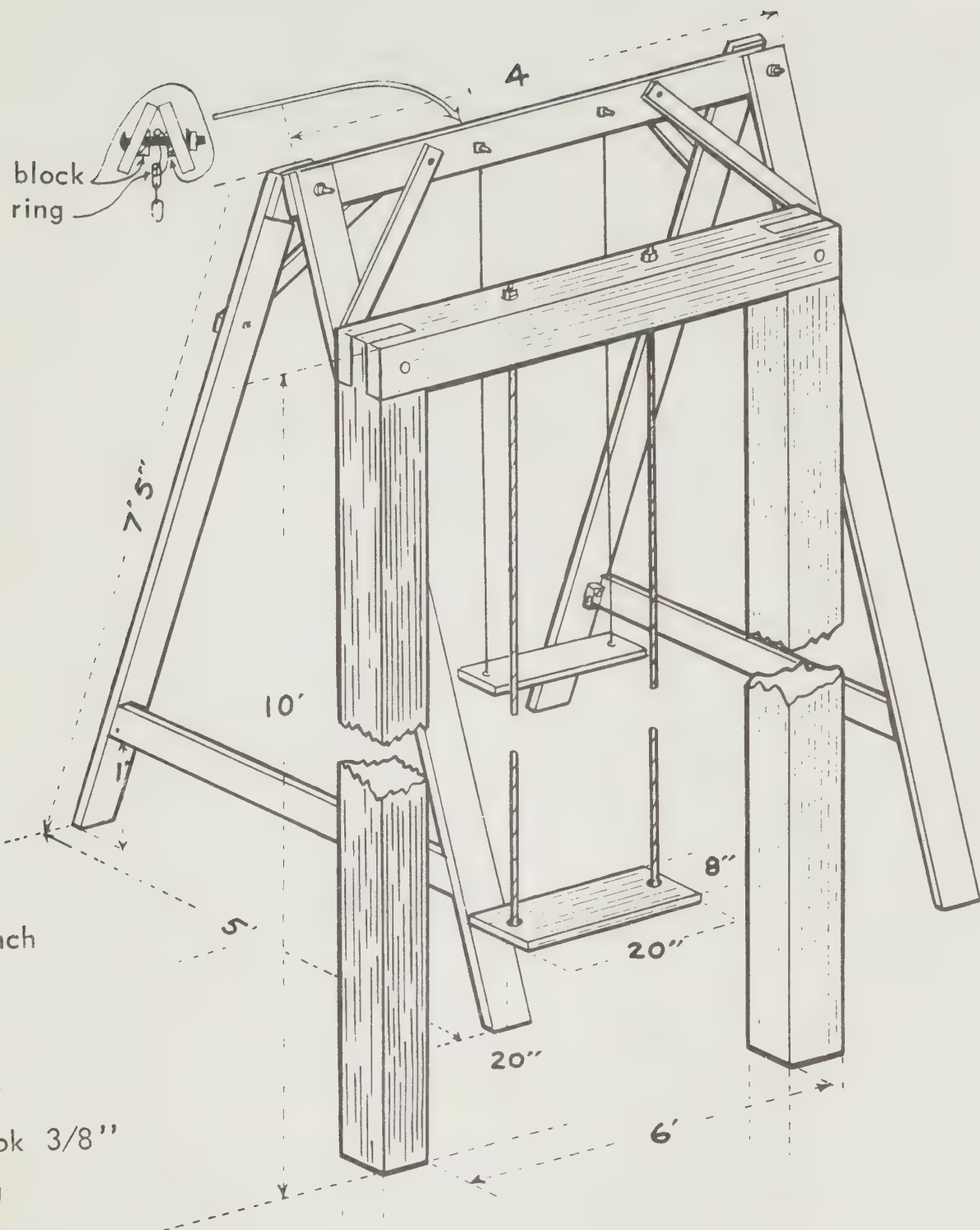
Build the first swing of 6" x 6" wood. Posts must be set in concrete, 1½' x 1½' x 3' deep in ground. If concrete is not used, firm bracing well anchored is required. With one more post, this swing will serve as a basis for a horizontal bar. U-bolts can be made by blacksmith.

For second swing use 1" x 4" hardwood braced at top by 1" x 2". ½" x 6" carriage bolts are used at top and ¼" x 2½" bolts on bracing.

Use rope or chain.

Protect buried portions with creosote.

Grease moving parts also all bolts you wish to remove later.



SOLID BUILDING BLOCKS (from Children's Centers)

No.	Name	Size	Number Recommended
1	Half Unit	2 3/4 x 2 3/4	12
2	Unit	2 3/4 x 5 1/2	24
3	Double Unit	2 3/4 x 11	30
4	Quadruple Unit	2 3/4 x 22	4
5	Roof Board	2 3/4 x 11 x 11/32	8
6	Pillar	1 3/8 x 5 1/2	12
7	Small Cylinder	1 3/8 x 5 1/2	4
8	Large Cylinder	2 3/4 x 5 1/2	4
9	Small Triangle	2 3/4 x 2 3/4	6
10	Large Triangle	2 3/4 x 5 1/2	6
11	Ramp	2 3/4 x 5 1/2	2
12	Elliptical Curve	2 3/4 x 13 1/2	4
13	Y-Switch	8 1/4 x 11	1
14	Right Angle Switch	5 1/2 x 8	1
15	Small Buttress	1 3/8 x 4 1/8	4
16	Half Gothic Arch	2 3/4 x 5 1/2	4
17	Circular Curve 2 3/4	2 3/4 x 8	4
18	Quarter Circle	2 3/4 x 2 3/4	4
19	Large Buttress	2 3/4 x 5 1/2	4
20	Gothic Door	2 3/4 x 5 1/2	2
21	Circular Arch	2 3/4 x 5 1/2	4
22	Half Circle	2 3/4 x 1 3/8	4

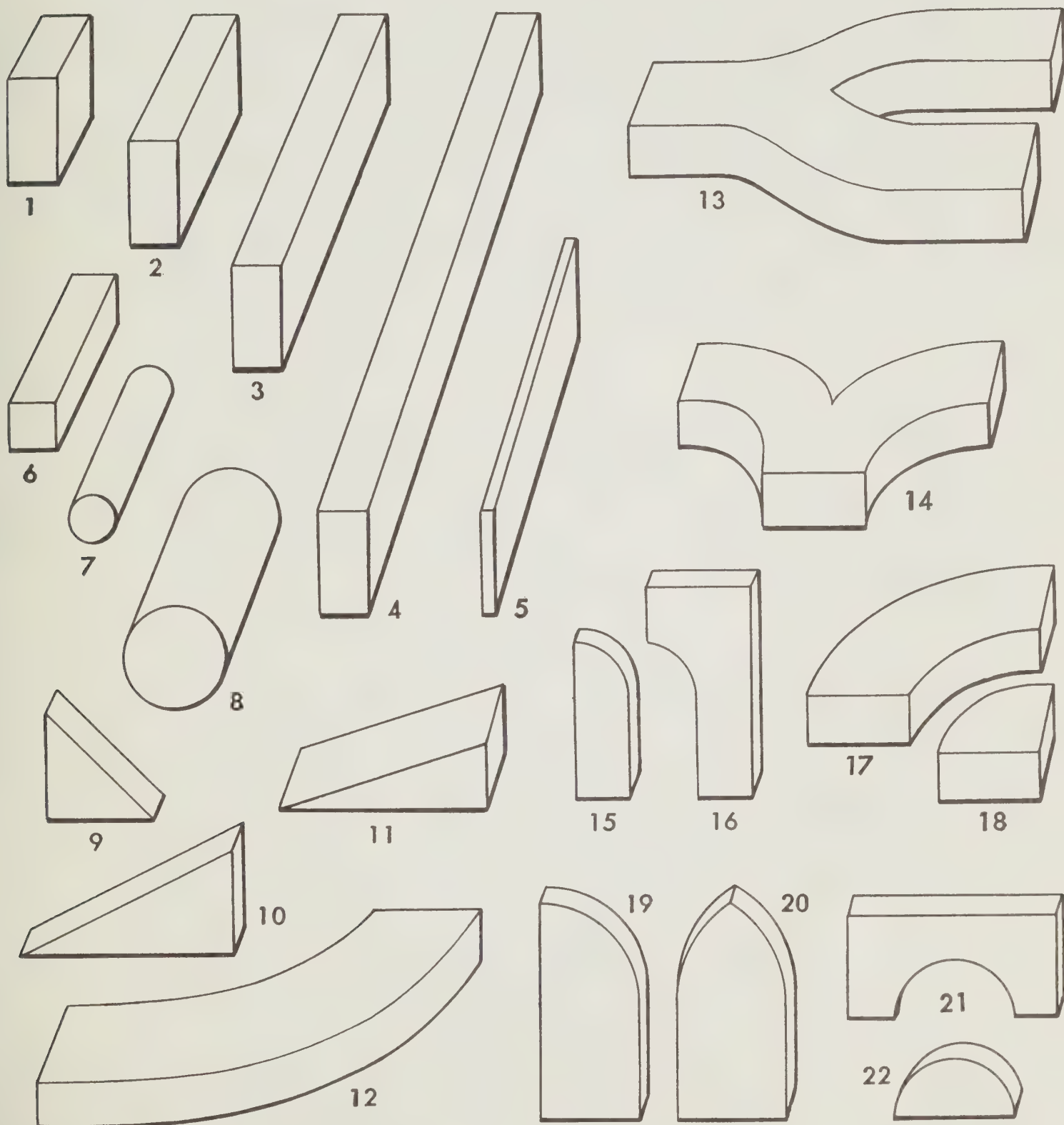
Thickness of all blocks, unless otherwise shown, is 1 3/8 inches.
All these dimensions call for dressed lumber.

Caution: These are designed as multiples of each other and should fit the rest of the set perfectly. Be sure and take into account the width of the saw cut.

Example: No. 10 is half of No. 2, but if No. 2 were cut in half the pieces would not fit the rest of the set perfectly because of the width of the saw cut. Likewise, the piece cut out of No. 21 does not make No. 22.

Measure each unit separately. It is worth the effort for this lasting play tool.

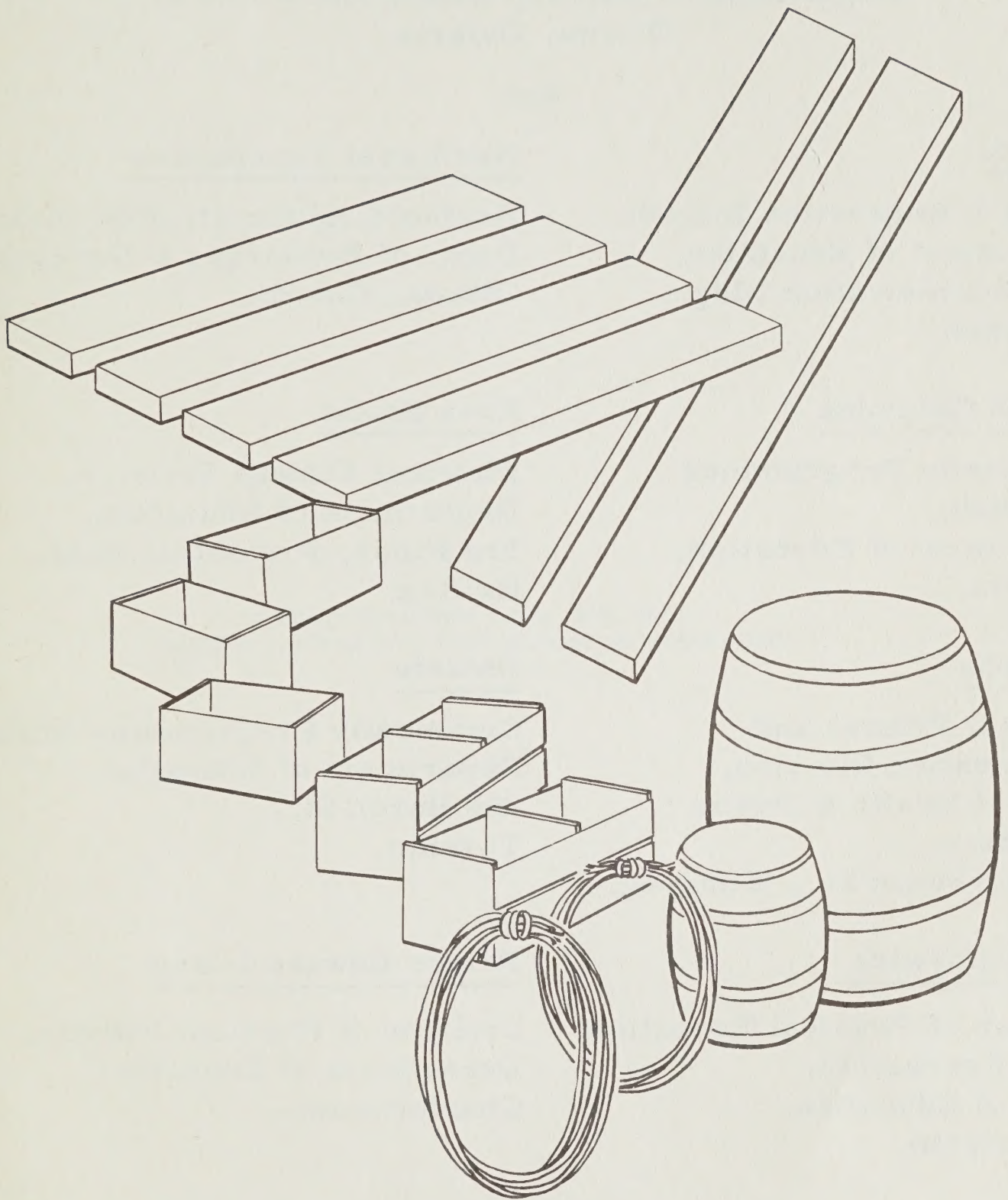
As your child grows, add to the set. He will be able to tell you which pieces he needs. The more pieces there are, the better a group of children will be able to play together.



play-yard accessories

Basic equipment for any play-yard are planks, boxes, barrels and rope. Plain two-by-six planks four and six feet long, sand-papered and painted, can be used in a thousand ways, especially if there are at least two of each size. Orange crates and butter boxes can be used for tables, chairs, houses, trains, storage of toys and many other uses. Nail kegs and barrels are fun to roll, and one can be used as an outdoor waste-basket. Varying lengths of clothes-line are useful in almost any project.

Planks, apple boxes, barrels, orange crates can more easily be collected than made. Sandpaper the rough edges, then paint them all the same colour. The builder will appreciate the uniformity given by painting them the same.



Informational materials may be obtained from the
Physical Fitness Division
Department of National Health and Welfare
Ottawa, Ontario

and

Alberta

Health & Recreation Branch,
Department of Education,
721 Administration Bldg.,
Edmonton.

British Columbia

Community Programmes
Branch,
Department of Education,
Victoria.

Manitoba

Physical Fitness and
Recreation Division,
Dept. of Health & Public
Welfare,
320 Sherbrook St., Winnipeg.

New Brunswick

Division of Physical Education
and Recreation,
Dept. of Education,
Fredericton.

Newfoundland

Department of Education,
St. John's.

Northwest Territories

Northern Administration Division,
Dept. of Resources & Development,
Ottawa, Canada.

Nova Scotia

Physical Fitness Division,
Department of Education,
3rd Floor, Provincial Bldg.,
Halifax.

Ontario

Community Programmes Branch,
Department of Education,
206 Huron St.,
Toronto.

Prince Edward Island

Division of Physical Fitness,
Department of Education,
Charlottetown.

Saskatchewan

Fitness and Recreation Division,
Department of Education,
1100 Broad St., Regina.

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**PHYSICAL FITNESS
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